

remove all nuisances; and who, I ask, are so fitted as those of the medical profession?—and for why? because they are in the hourly and daily habits of visiting the lowest and densest haunts of the poor and needy. But it seems the design of the government invariably to humiliate the medical profession, and make them subservient; and for what reason? why, because the profession has forgotten and neglected its value and position in society—it has been the tool and adjutor of corrupt ministration—it has not shown its strength and influence in political affairs—it has no recognised status as a body, like the church and the law, who are eternally in the front rank of beseechers for their own advantage. If the medical profession were true to themselves, and endeavoured to place a few more like Mr. Wakley in parliament, they then would have that just and proper weight which becomes their value and importance in the political community. I need not to apprise your mind of the many obligations the public owe to the profession for advantages they already possess. To us alone any progress in cleansing is due—not one syllable has emanated from the clergy or law to advance sanitary measures; to us belong the honour, to us the merit is denied. We are the fools by which the cunning weave their webs to procure to themselves warm comforts and independence.

Howley-place, Harrow-road, August, 1849.

### THE POISONED FLOUR AT STOURBRIDGE.

REMARKS ON CASES OF POISONING BY THE ACETATE OF LEAD; AND ON DR. AYRE'S TREATMENT OF ASIATIC CHOLERA.

By WILLIAM NORRIS, M.D.,

LATE PHYSICIAN TO THE STOURBRIDGE DISPENSARY.

ACUTE and chronic diseases of the abdominal viscera form a large class of the most violent and dangerous character that come under the treatment of the medical practitioner; and without early and decisive measures they too often terminate fatally; and any opportunity that may occur to throw the least additional light on their pathology or treatment should be zealously cultivated.

As an awful occurrence has taken place in the towns of Stourbridge and Kidderminster, and the neighbouring villages, from the mistake of a miller's servant, who mixed about thirty pounds of acetate of lead, in the place of alum, with seventy or eighty sacks of flour, nearly a thousand persons having suffered from its poisonous effects, I shall make a feeble attempt to place before the profession anything new or striking, with the hope that it may induce eminent toxicologists to investigate the alarming disease more minutely. The sufferings of the patients, in consequence of eating the poisoned bread, have been unusually severe, and protracted for some weeks after the violent symptoms first commenced; the strongest and most robust men (from long suffering, and from the frequent occurrence of violent paroxysms) have been reduced to the most emaciated and feeble state.

The persons who ate the bread, after a few weeks, complained of a peculiar taste; some compared it to soda, others to rusty needles, or copper. The tongue was covered with a darkish, cream-coloured mucus, and was soft and flabby; the gums were swollen, with a blue line on the margin, and in many cases the blue tinge extended nearly over the gums, and occasionally on the inner side of the lower lip, and in a faint degree over the mucous membrane of the mouth, and towards the fauces. The tonsils were in some cases enlarged, producing soreness of the throat; and in other cases there was salivation, a clear fluid flowing from the mouth many days after convalescence.

These symptoms were accompanied by loss of appetite, nausea, vomiting, flatulency, and obstinate constipation, with a sense of constriction in the throat and epigastrium, and a violent spasmodic pain and twisting around the umbilicus, which was retracted. The pain was sometimes increased by pressure, occasionally extending over the abdomen; and when the paroxysms were violent, the muscles of the abdomen were contracted spasmodically.

A most frequent symptom was pain in the loins, about the situation of the lumbar fascia; also in the deltoid muscles. The patients were chilly, with great languor and lassitude; the cutaneous secretion was diminished; the intellect was clear, but there was generally depression of the nervous, sanguiferous, and muscular systems; the pulse was low and feeble; the features were sallow and shrunk; and the muscles were soft and flabby. The fluid vomited was often mixed with bile, and occasionally coffee-ground secretion; the fæces

were dark, and highly offensive, with scybala; the secretion from the kidneys was scanty, and of a dark-red colour, almost like porter.

*Treatment.*—The bowels were in general so obstinately costive, that large and frequently-repeated doses of the strongest cathartics were often necessary. Sometimes I began with a large dose of calomel, followed by sulphate of magnesia or castor oil. When these did not produce sufficient effect, croton oil and voluminous enemata were used with manifest advantage. Croton-oil frictions were useful when vomiting was excessive; to allay the sickness, hydrocyanic acid, or small doses of calomel-and-opium. By the omission of the daily purgative the symptoms would in many cases return. The patients were directed to take light, nutritious food, and milk, during convalescence. Some cases were so slight (although the gums were blue) that the patients would not take medicine.

In violent cases, when other remedies had failed, the warm bath relaxed the spasms very speedily. Opiate frictions and bran poultices were useful in milder cases. The soothing effects of the warm bath in some instances were quite astonishing, and in violent cases it should never be omitted, for it not only relieves the abdominal pain, but allays the spasms and irritation in other muscles of the body. When there was tenderness in the abdomen on pressure, leeches were beneficial, and in one case venesection was absolutely necessary.

A young woman, Phœbe W—, aged twenty-two, who had suffered severely from peritonitis three years before, had been ill from the effects of lead (with very blue gums) more than a week, when the pain in the abdomen much increased, with great tenderness on pressure, feverish excitement, and rapid pulse. Venesection and leeches were used, and the sufferings were mitigated; the symptoms returned with increased violence, and bleeding and other antiphlogistic remedies were repeated. The blood was buffed and cupped. As the inflammatory symptoms subsided she became almost maniacally hysterical on several successive nights, and yet she recovered many weeks sooner than any of the family, so that I am inclined to believe that in strong subjects venesection may be useful.

In very severe cases there was great exhaustion, and a slight leaden hue in the countenance; then stimulants became absolutely necessary.

It was melancholy to observe ten or twelve patients in poor families, all suffering at the same time, and scarcely able to assist each other, without funds, and without necessaries.

In one of the last numbers of the *Provincial Journal* I found iodide of potass, recommended in small doses, as a remedy for the poisonous effects of lead and mercury, by forming a soluble salt, which is readily eliminated. The experiments were performed by M. Natalis Guillot, read before the Académie des Sciences, Paris. I have tried this remedy in some cases, and certainly, gums that had been blue for months in a few days changed to a more natural appearance, and no symptoms of severity have since occurred; in fact, the patients appear now quite convalescent.

The poison of lead appears to exert its deleterious effects mostly on the muscular system. One of the most frequent symptoms was an acute or chronic pain in the muscles of the loins, and perhaps in the fascia lumborum; and in many cases the larger muscles of the body were affected with pain. Probably the abdominal pain is occasioned by the spasmodic constriction of the muscular fibres of the larger bowels, thus diminishing their contractility of tissue; and this may, in part, be the cause of constipation, though in some cases the spasm may be confined to the abdominal muscles.

In a youth eighteen years of age, with blue gums, the pains were confined to the muscles of the arms and legs, and he suffered most severely from violent contraction in all the extremities, without pain of abdomen or loins.

In this neighbourhood we have numerous glass-houses, and many hundreds of men are constantly employed in the fumes of lead, whom we know by a sallow, thin, unhealthy aspect, with soft and flabby muscles. The relapses in some constitutions were very frequent and very severe, sometimes after several weeks had elapsed, and patients thought themselves well.

Mr. S—, aged forty-seven, an irritable man of nervous temperament, had suffered from several severe paroxysms; the pains begun gradually to return a month after the onset of the disease, and increased like the pains of labour, every ten minutes, or a quarter of an hour; there was great difficulty in relieving his bowels, (which, in many instances, were locked up for a week or nine days.) When the bowels were cleared, large and repeated doses of laudanum only mitigated his sufferings, till at length, at the end of thirty-six hours, the pains

were returning very frequently, and became more and more violent in the abdomen, back, and various parts of the body, somewhat similar to the last pains of childbirth, with the pulse excited, and the face flushed; he was almost maniacal, biting, and tearing anything before him. An immersion in the hot bath acted like a charm; in a few minutes the pain subsided in the bath; he went into a profuse perspiration, and slept all night: at the end of two months the case terminated with severe diarrhoea.

Sarah W—, aged twenty, a strong, robust woman, had more than a dozen severe paroxysms for six weeks; during most part of that time she was confined to her bed, and at the end of seven weeks she had an attack more severe than any that preceded. The pains intermitted, being sometimes moderate, then succeeded by agonizing torture. The warm bath gave great relief in this case, but there was a slight return from irritating scybala, and as long as scybala remain, there is no safety. In these cases, the lower bowels were often freely opened; still, much irritating matter remained in the upper bowels, and perfect ease from the paroxysm cannot be ensured till all irritating secretions are removed. Persons of all ages suffered, even children at the breast; also rabbits and birds. Some persons were affected very slightly, having only a slight griping pain in the bowels, with muscular pains, dyspeptic symptoms, or a half-jaundiced appearance. Many of these chronic cases went on for two or three months, without any violent paroxysm.

I attended a painter, who had suffered severely from paroxysms nearly a week, when some scybala came away, of a very curious appearance, being of oval shape, and of the size of marbles; they were fatty substances, rather hardened, like suet, with a green tinge. The patient told me that for weeks he had been eating fat mutton, and had been very much employed in mixing green paint; the symptoms now subsided; he had no return. In this case, two quarts of warm water were given as an injection, which succeeded in relieving obstinate constipation, which had resisted frequently repeated doses of croton oil and other drastic cathartics.

In cases of inflammation of the bowels, or when there is great irritation in the mucous membrane, warm water enemata are of great value, they are soothing to the irritable parts, and more effectually bring away disordered and irritating secretions.

The stimulating effects of turpentine injections, particularly in strumous and delicate subjects, where much irritation exists, is not always, I fear, free from danger; and occasionally may excite inflammation.

The extensive blueness in the gums was a very characteristic feature in this disease. I saw 120 cases, and witnessed this peculiarity in most of them. There were very few exceptions. Those patients with the gums most tinged did not always suffer the most acute symptoms, but they continued more or less indisposed, till the gums assumed their healthy aspect; but I do not consider any patients safe, if they have suffered from severe paroxysms, while this unnatural appearance remains, for many have followed their avocations for weeks, and have then been doomed to fresh and perhaps more severe attacks. I ate the poisoned bread myself, but the symptoms went off very lightly. In convalescence, I always enjoined strict attention to the bowels, very warm clothing, and a milk and light diet.

No case of paralysis of the arms has yet occurred. Some violent cases were followed by mild typhoid symptoms, others by slight jaundice, anasarca, and diarrhoea. One diseased old woman, subject to pyrosis, I think, must have died from exhausting diarrhoea, if she had not been well supplied with brandy, laudanum, and other stimulants.

Some are easily affected with small doses of lead, whilst others I have seen since the last few months have resisted its effects most wonderfully. I knew a man take half an ounce of liquor plumbi in mistake, without any ill effects.

I have endeavoured to give a faithful narrative of the cases taken from the bedsides of the patients, and it is gratifying to be able to state that we have not lost a single patient, though all will admit that they never saw before such violent and long-continued cases. This differs from Andral's computation, who states that one death generally occurs in every hundred cases. This success is very satisfactory to the medical men, who attended the patients most diligently and zealously. I feel much obliged to them for frequent discussions on their cases during treatment.

The miller from whom the flour came was also a paper-maker, and used acetate of lead for bleaching his paper.

Stourbridge, August, 1849.

P.S.—I have been so much pleased with Dr. Ayre's treatment of cholera, and your remarks, that I beg leave to transmit a few observations on that disease, for you to annex (if you think them worthy of attention) to this paper.

I trust and hope that Dr. Ayre's plan of treatment will enable us to diminish the fatal effects of that direful disease, and I think he merits our warmest praise. The bold, yet judicious plan of giving small and frequently-repeated doses of mercury with opium, in my humble judgment, is far preferable to giving scruple doses of calomel. It may be presumed, from the frequent vomitings, that probably not half the remedy remains on the stomach, and smaller doses are more likely to remain than larger doses; and that circumstance may diminish our fears as to its salivating effects, which are also lessened by the numerous secretions carried off by the disease. When vomitings are very frequent, much of the mineral must be returned, therefore we may also use frictions with laudanum on the parts most suffering from spasm, together with mercurial frictions on various parts of the body, with more certainty of success; but I believe mercury to be our sheet-anchor.

In this awful disease, cholera, time is of the greatest consequence, and the quick repetition-doses of the remedy is the essential part of the discovery. We shall be justified in using it vigorously, for we must remember that violent diseases require violent remedies, and, as Shakspeare says, "when the greater evil is fixed, the lesser is not felt."

In some of the cases of lead colic, published in the *Provincial Medical Journal* of June 27, 1849, I gave small and frequently repeated doses of calomel with opium, which so much relieved the spasms and vomitings that some of my patients urgently requested a repetition of the same medicines in succeeding paroxysms.

## ON A CASE OF INTUS-SUSCEPTION OF THE INTESTINES.

By CHARLES CLARK, Esq., M.R.C.S., &c., London.

THE following case seems to me worthy of record, from the youth of the patient and the extent of the displacement. Mrs. P—'s child, aged six months, having previously suffered from an irregular state of the bowels, was suddenly seized, on Wednesday, the 25th of April, with severe pain, which caused it for some time to scream violently; it afterwards became easier, but the pain having returned, I was sent for, and saw it the following morning. I found it lying on the mother's lap, pale and wan, in an apparently dozing state, with the whites of the eyes just appearing between the half-closed lids. The child then suddenly woke up, and writhed its body about, as if suffering great pain; and on examining the abdomen, the muscles of the left side were observed to be thrown into a hard lump, from spasm. A severe fit of retching ensued, and was followed by a sanguineo-mucous evacuation, chiefly, however, of blood. The child then lay back, seemingly exhausted, and relapsed into a dozing, stupefied state again, and thus it would remain until another attack came on. These symptoms were observed during my visit, and continued to be repeated at intervals more or less until its death. The pain in the bowels, the vomitings, and the sanguineous stools, led me at first to consider the case as one of dysentery, and various remedies were administered under that impression. Acetate of lead and opium, which seemed to check for a time the purging of blood, calomel and Dover's powder, castor oil, mustard poultices, and turpentine liniments externally, were all employed in vain. Finding that nearly everything taken was ejected from the stomach, and that the evacuations from the bowels were destitute of faecal matter, an injection was given, but it was almost immediately repelled. I now began to suspect strangulation, although nothing like faecal vomiting occurred till within a few hours of its death, which, the mother informed me, she knew had taken place by the smell. The child died early on the 29th, about sixty hours from the first seizure. The parents readily permitted a post-mortem examination—the more so, perhaps, as the mother had lost all her other children both by this and a former husband, but I am happy to say the old prejudice against such examinations is fast vanishing from this country.

On opening the abdomen, the muscles were found pale and thin, and the intestines inflated with gas. A few ounces of brownish serum was effused into the cavity of the peritonæum, though the membrane itself was uninfamed, except immediately around the strangulated bowel. On the left side, and within the descending colon, was found what at first sight looked like a mass of hardened faeces, but on more accurate